

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION**

GENERAL ELECTRIC COMPANY,

Plaintiff,

v.

**MITSUBISHI HEAVY INDUSTRIES,
LTD., and MITSUBISHI POWER
SYSTEMS AMERICAS, INC.,**

Defendants.

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CIVIL ACTION NO. 3:10-CV-276-F

JURY TRIAL DEMANDED

GE'S CLAIM CONSTRUCTION REPLY BRIEF

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I.

INTRODUCTION

There are two remaining claim construction disputes.¹ First, with regard to claim 1 of the ‘705 Patent, the parties dispute what it means to configure a wind turbine or other electrical machine to ride through a disturbance such as where the electric power grid voltage drops to approximately zero volts for “an undetermined period of time.” Based on the intrinsic record, GE construes this language to mean a time period not determined in advance. As the ‘705 Patent teaches, it is the nature of grid voltage disturbances that it cannot be determined in advance of a particular disturbance how long the disturbance will last, and instead the length depends “upon a variety of factors known in the art.” GE App. at 17 (‘705 Patent at 6:34-36).

Mitsubishi seeks to rewrite “an undetermined period of time” to require “no time limits placed on the period of time the machine remains connected to the electric power system when the voltage is outside the range.” Mitsubishi does so in a legally erroneous attempt to win the infringement battle during claim construction. *See* Mitsubishi’s Br. at 18, 28. Mitsubishi’s proposal would insert a new limitation that is inconsistent with the claim language and that is not required or even described anywhere in the specification. There is no requirement in the ‘705 Patent that the machine remain connected with “no time limits,” and nothing in the intrinsic or extrinsic evidence that Mitsubishi offers supports it.

¹ As explained in more detail below, in addition to its arguments regarding “connection point” in the ‘055 Patent, Mitsubishi’s brief only presents arguments regarding one portion of the disputed phrases in the ‘705 Patent – “an undetermined period of time.”

The other disputed term is “connection point” in claim 1 of the ‘055 Patent. GE construes this language to refer to the area of contact between the upper part and the lower part of the base frame, because that is where the parts are connected to each other. This explains the disputed term without attempting to rewrite other portions of the claim. In contrast, Mitsubishi’s proposal – which once again is driven by its noninfringement arguments, *see, e.g.*, Mitsubishi’s Br. at 6 – would refer to the connection point as “the point where the lower part and the upper part are joined together to form the base frame.” This is redundant because other parts of the claim already refer to “attachably join[ing]” the parts together. And it is inaccurate to the extent that Mitsubishi intends to argue, in support of its noninfringement position, that the parts must be “joined” throughout every portion of the connection point. Far from providing “greater clarity” (Mitsubishi’s Br. at 13) when none is needed, Mitsubishi’s proposal once again attempts to inject limitations into the claim and should be rejected.

II.

MITSUBISHI’S NONINFRINGEMENT ARGUMENTS ARE LEGALLY IRRELEVANT TO CLAIM CONSTRUCTION

As noted above, Mitsubishi attempts to buttress its proposed claim constructions with a series of noninfringement arguments regarding its accused wind turbines. These noninfringement arguments are irrelevant to claim construction as a matter of law. “Although ‘it is appropriate for a court to consider the accused device when determining what aspect of the claim should be construed,’ it is not appropriate for the court to construe a claim solely to exclude the accused device.” *Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1367 (Fed. Cir. 2008) (citing *Exigent Tech., Inc. v. Atrana Solutions, Inc.*, 442 F.3d 1301, 1310 n.10 (Fed. Cir. 2006)). To the contrary, a

“claim is construed in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification, *not* in light of the accused device.” *SRI Int’l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985) (*en banc*) (emphasis in original). As the “Legal Standards” section of Mitsubishi’s brief recognizes, it is wrong to “prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process.” *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1326-27 (Fed. Cir. 2006).² Mitsubishi cannot use its arguments regarding its accused wind turbines to influence claim construction.

Mitsubishi’s brief confuses the present exercise of claim construction with the application of the properly construed claims to its accused products. “An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*), *aff’d*, 517 U.S. 370 (1996). That is the claim construction exercise at issue here. “The second step is comparing the properly construed claims to the device accused of infringing.” *Id.* That will take place at trial.

III.

ARGUMENT

A. “An Undetermined Period Of Time” (“705 Patent, Claim 1)

GE’s opening brief identified the four claim construction disputes between the parties which arise from the two long phrases in claim 1 that Mitsubishi has asked the

² Consideration of an accused device can play a limited role by providing useful context regarding whether or not a claim term at issue actually needs to be construed. *See Wilson Sporting Goods*, 442 F.3d at 1326-27; *see also Cohesive*, 543 F.3d at 1367; *Exigent*, 442 F.3d at 1310 n.10. But in this case, the parties do not dispute that the disputed terms should be construed.

Court to construe. Mitsubishi's brief focuses on only one of those disputes: the construction of "an undetermined period of time." Accordingly, GE's argument in this reply brief likewise focuses only on that dispute. GE's proposals regarding the other disputes should be adopted for the reasons stated in GE's opening brief.³

The following charts provide the two long disputed phrases, with the portions argued in Mitsubishi's brief shown by italics and underlining.

Term(s)	GE's Proposed Construction	Mitsubishi's Proposed Construction
"configuring the electrical machine such that the electrical machine remains electrically connected to the electric power system during and subsequent to a voltage amplitude of the electric power system operating outside of a predetermined range for <u>an undetermined period of time</u>" [claim 1]	setting up the electrical machine such that the electrical machine remains electrically connected to the electric power system during and subsequent to a voltage amplitude of the electric power system operating outside of a range determined in advance for <u>a time period not determined in advance</u>	setting up the electrical machine such that the machine remains connected to the electric power system during and subsequent to the voltage amplitude operating outside of a defined range, with <u>no time limits placed on the period of time the machine remains connected to the electric power system when the voltage is outside the range</u>

³ The other disputes are:

(a) The construction of "a predetermined range." This phrase should be construed as "a range determined in advance." *See* GE's Br. at 11-13.

(b) The construction of the portion of the second long "configuring" term referring to the "control system." The reference to the "control system" should be included in the construction and not omitted as Mitsubishi proposes. *See* GE's Br. at 19.

(c) The last clause of the second long "configuring" term, stating: "thereby facilitating zero voltage ride through (ZRV) [sic, ZVRT]." This clause should be included in the construction and not omitted as Mitsubishi proposes. *See* GE's Br. at 20.

<p>“configuring the electrical machine and the control system such that the electrical machine remains electrically connected to the electric power system during and subsequent to the voltage amplitude of the electric power system decreasing below the predetermined range including approximately zero volts for <u>the undetermined period of time</u>, thereby facilitating zero voltage ride through (ZVRT) [sic, ZVRT]” [claim 1]</p>	<p>setting up the electrical machine and the control system such that the electrical machine remains electrically connected to the electric power system during and subsequent to the voltage amplitude of the electric power system decreasing below the range determined in advance, including approximately zero volts, for <u>the time period not determined in advance</u>, thereby facilitating zero voltage ride through (ZVRT)</p>	<p>setting up the electrical machine such that the machine remains connected to the electric power system during and subsequent to the voltage amplitude decreasing below the defined range, including to approximately zero volts, with <u>no time limits placed on the period of time the machine remains connected to the electric power system when the voltage is below the range</u></p>
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Mitsubishi’s proposal apparently seeks to take language referring to the “undetermined” length of voltage transients – which, as the ‘705 patent teaches, vary in length “depend[ing] upon a variety of factors known in the art,” GE App. at 17 (‘705 Patent at 6:34-36) – and convert it into a requirement that the invention of the ‘705 Patent allow a wind turbine to remain electrically connected to the electric power system, without tripping, for a period with “no time limits.” But Mitsubishi’s proposal is contrary to the patent claims; contrary to the other intrinsic evidence in the specification and prosecution history; and even contrary to the extrinsic evidence of ZVRT grid requirements that Mitsubishi offers in support of the noninfringement argument that Mitsubishi attempts to inject into the claim construction analysis.

1. Mitsubishi’s Attempt To Import A “No Time Limits” Requirement Into Claim 1 Should Be Rejected

In attempting to rewrite claim 1 to require “no time limits,” Mitsubishi’s brief commits two legal errors. First, it attempts to limit the claim by importing

limitations from the ‘705 specification, for example regarding what Mitsubishi asserts is “[t]he only method of configuring an electric machine described in the patent.” Mitsubishi’s Br. at 24. Such attempts to import limitations from the specification into the claims are improper. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005). Second, Mitsubishi’s brief fails to accurately describe the teachings of the ‘705 specification, and includes a number of incorrect statements regarding the embodiment it discusses.⁴ Thus, the “no time limits” limitation that Mitsubishi attempts to import into claim 1 not only is inconsistent with the proper scope of the claim, but is inconsistent with the embodiment disclosed in the specification as well – another legal error. *See MBO Labs., Inc. v. Becton Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007).

Mitsubishi begins its argument by referring to what it calls the “plain language” of claim 1, which, according to Mitsubishi’s brief, requires that the electrical machine (such as a wind turbine) “remains electrically connected . . . for an undetermined period of time.” Mitsubishi’s Br. at 25 (last full paragraph on page 25 of the brief, quoting claim 1, with the ellipsis added by Mitsubishi). The implication, stated in the next sentence of the brief, is that claim 1 requires “configuring a machine to remain connected for an ‘undetermined period of time.’” Mitsubishi’s Br. at 25 (again quoting claim 1). But that is not what claim 1 says. To the contrary, the ellipsis in Mitsubishi’s quotation significantly changes its meaning.

⁴ Some of the incorrect statements that are of greater significance to claim construction are addressed below. GE reserves the right to respond to all of the inaccuracies as appropriate as this lawsuit proceeds.

Actual Language Of Claim 1	Quotation In The Last Full Paragraph On Page 25 Of Mitsubishi's Brief
<p>“remains electrically connected to the electric power system during and subsequent to a voltage amplitude of the electric power system operating outside of a predetermined range for an undetermined period of time”</p>	<p>“remains electrically connected . . . for an undetermined period of time” (ellipsis added by Mitsubishi)</p>

As shown by this table, the claim does not simply say that the electrical machine remains connected for an undetermined period of time. Instead, the phrase “undetermined period” refers to the length of the voltage transient. Thus, the claim states that the electrical machine remains connected to the electric power system during and subsequent to a “voltage amplitude of the electric power system operating outside of a predetermined range for an undetermined period of time.” GE App. at 20 (‘705 Patent at 11:50-53).

This is an important distinction. The focus of the ‘705 Patent is on dealing with voltage transients of uncertain length. GE App. at 15 (‘705 Patent at 1:28-31) (“Under certain circumstances, grid voltage fluctuations may be experienced that may include low voltage transients with voltage fluctuations that approach zero volts.”), 17 (‘705 Patent at 6:34-36) (“Alternatively, a length of time of the zero voltage condition and the characteristics of a grid voltage recovery depend upon a variety of factors known in the art.”); *see also* GE’s Br. at 15. Thus, as explained on page 13 of GE’s opening brief, claim 1 uses the word “undetermined” in contrast with the word “predetermined.” The voltage range of normal operation is “predetermined” – determined in advance – while the period during which the voltage is outside the normal range is “undetermined” – meaning not determined in advance. But that does not mean the invention of the ‘705 Patent has to be able to accommodate all voltage disturbances, no matter how long.

One of the purposes of the invention, expressly stated in the last clause of claim 1, is “facilitating zero voltage ride through.” GE App. at 20 (‘705 Patent at 11:66-67). This purpose must be considered in construing any portion of the claim. *See Hockerson-Halberstadt, Inc. v. Converse Inc.*, 183 F.3d 1369, 1374 (Fed. Cir. 1999) (“Proper claim construction, however, demands interpretation of the entire claim in context, not a single element in isolation.”). And zero voltage ride through does not require a wind turbine to be capable of accommodating any voltage disturbance of any length. There is nothing in the ‘705 Patent specification to suggest a requirement of being able to ride through voltage disturbances with “no time limits.” Instead, the ‘705 specification repeatedly refers to the voltage disturbances that it addresses as “fluctuations” and “transients.” *See* GE’s Br. at 15 (collecting quotations from ‘705 specification). The duration of such disturbances is “undetermined” because it cannot be determined in advance of the disturbance how long the disturbance will last. That is the nature of voltage disturbances.

The ‘705 specification also recognizes that even in the example it describes, there are a number of occasions when the electrical machine may become disconnected from and de-synchronized with the power grid. GE App. at 19-20 (‘705 Patent at 9:43-47, 10:1-4, 11:15-19). The specification also explains that the invention “facilitates wind turbine generator reliability and wind turbine generator outages by reducing” – not eliminating – “the number of trips due to grid disturbances.” *Id.* at 20 (‘705 Patent at 11:27-29).

Mitsubishi attempts to rebut this by arguing that “[t]he specification describes only one way [sic] to configure a wind turbine in accordance with the purported

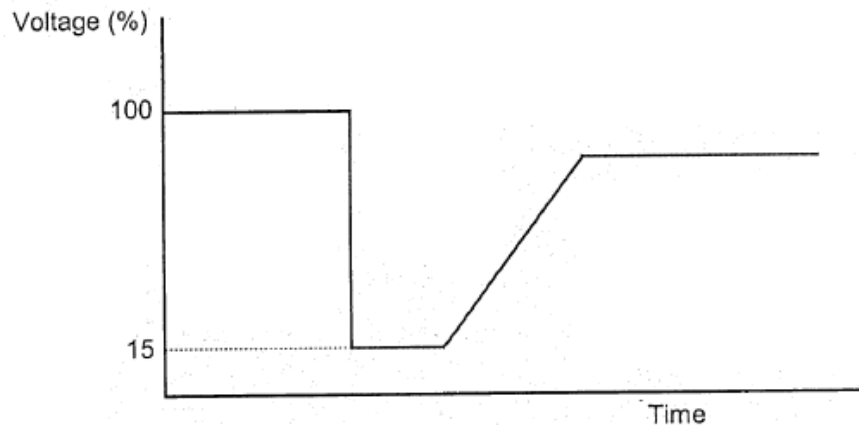
invention of claim 1 – allowing a wind turbine to remain connected to the utility grid until ‘restoration of grid voltage’ or harmful operating conditions end low-voltage operation.” Mitsubishi’s Br. at 26 (quoting ‘705 Patent). This argument is both irrelevant and incorrect. It is irrelevant because even if Mitsubishi’s argument were correct, it would defeat the assertion that the ‘705 specification requires remaining connected with “no time limits.” A wind turbine that disconnects in response to “harmful operating conditions” does not remain connected with “no time limits.”

Mitsubishi’s argument is also incorrect because it fails to account for the full teachings of the ‘705 specification. For example, the specification teaches, in the description of the exemplary phase locked loop (“PLL”) and state machine, that “de-synchronization” of the wind turbine from the electric power grid can occur while the PLL is in “state 3,” which Mitsubishi recognizes is its “zero-voltage operating state.”⁵ GE’s App. at 20 (‘705 Patent at 11:15-19); Mitsubishi’s Br. at 26. The events that can cause de-synchronization include, but are not limited to, the rotor rotation speed and current surges mentioned in other parts of the ‘705 specification (*see* GE App. at 17 (‘705

⁵ Two points bear emphasizing here. First, this is a portion of the ‘705 specification providing a very detailed description of one embodiment that goes far beyond the language of claim 1 and clearly should not be read to limit the claim to that one embodiment. The Federal Circuit’s *en banc* decision in *Phillips* states: “[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments.” *Phillips*, 415 F.3d at 1323; *see also Electro Med. Sys., S.A. v. Cooper Life Sci., Inc.*, 34 F.3d 1048, 1054 (Fed Cir. 1994). “In particular, we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” *Phillips*, 415 F.3d at 1323. Second, the structure and functionality discussed in this portion of the specification are parts of the control system of this embodiment that are directed to accomplishing ZVRT. Mitsubishi’s attempts to omit any reference to the control system, or to ZVRT, from its proposed construction stand in sharp contrast to its efforts to use this detailed disclosure to limit other portions of the claim.

Patent at 6:37-55)) and discussed in Mitsubishi's brief. But de-synchronization is inevitable if a zero voltage event lasts long enough, because when the grid voltage is at zero, there is no grid voltage signal for the PLL to track to remain synchronized. *See* GE App. at 18 ('705 Patent at 7:18-27) (explaining that the PLL "locks on" or synchronizes to a reference signal such as provided by bus 242, which is the electric power grid bus and thus provides the grid voltage); *see also generally* GE's Br. at 6-7 (explaining PLL and other background and examples provided in '705 specification). Thus, even this very detailed example does not support remaining connected to the power grid with "no time limits."

The prosecution history also supports GE's construction and contradicts Mitsubishi's "no time limit" proposal. As explained on pages 16-17 of GE's opening brief, the Patent Examiner found that a reference, U.S. Patent Application No. 2004/0145188 ("Janssen"), "discloses for the purpose of controlling efficiently severe voltage fluctuations that power systems can have power fluctuations outside of a range for an *undetermined period of time* (paragraph 0016) and maintains an electrical machine connected to the system (paragraphs 0027, 0029)." GE App. at 35 (emphasis added). Janssen paragraph 0016, cited by the Examiner, points in turn to Figure 1 of Janssen, which is reprinted below.

Janssen, Figure 1 (GE App. at 39)

Janssen Figure 1 shows a low-voltage transient, of limited duration, that is followed by a return of the grid voltage to its normal operating range.⁶ Referring to Figure 1, paragraph 0016 of Janssen states that it is “during this voltage fluctuation” that “the wind turbine generator must remain connected to and synchronized with the power grid to satisfy low voltage ride through specifications.” GE App. at 45. Thus, the period of low voltage fluctuation in Janssen that the ‘705 Examiner referred to as “an undetermined period of time” was of limited duration. It did not have “no time limits.”

2. The ERCOT And FERC Operating Requirements That Mitsubishi Cites As Extrinsic Evidence Do Not Support Mitsubishi’s Position

Mitsubishi’s brief cites the power grid operating requirements published by the Federal Energy Regulatory Commission (“FERC”) and the Electricity Reliability Council of Texas (“ERCOT”) as extrinsic evidence. Mitsubishi’s Br. at 3, 27. But Mitsubishi’s appeal to the grid operating requirements fails for several reasons. First, the

⁶ Figure 1 of Janssen is similar to Figure 3 of the ‘705 Patent. However, a difference between Janssen and the ‘705 Patent is that Janssen was concerned with low voltage, not zero voltage, ride through.

grid operating requirements are extrinsic evidence, and as such cannot be used to contradict the intrinsic record of the '705 Patent specification and prosecution history. *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1584 (Fed. Cir. 1996). Second, Mitsubishi cites the grid operating requirements in an attempt to support its argument that it does not infringe because "Mitsubishi's wind turbine disconnects from the utility grid if a grid voltage fluctuation does not end within a prescribed period of time."⁷ Mitsubishi's Br. at 18; *see also id.* at 22-23, 25, 27-28. But as explained above, such noninfringement arguments cannot be used to construe the claims "in light of the accused device." *SRI*, 775 F.2d at 1118; *see also Cohesive*, 543 F.3d at 1367; *Wilson Sporting Goods*, 442 F.3d at 1326-27.

Third, even if the extrinsic evidence in the grid operating requirements were to be considered, it would not support Mitsubishi's position. As stated in the last clause of claim 1, reprinted above, one of the express purposes of the invention of the '705 Patent is "facilitating zero voltage ride through." Mitsubishi's proposed construction omits this clause, and Mitsubishi's brief minimizes any reference to this stated purpose of facilitating ZVRT. But the same ZVRT grid requirements that Mitsubishi cites on pages 3 and 27 of its brief allow placing an upper limit on how long a wind turbine must remain connected during voltage transients. The ERCOT requirements even include a graph, reprinted below, that is similar to Figure 3 of the '705 Patent. A person of ordinary skill would recognize that claim 1, with its express

⁷ As to Mitsubishi's characterization of how its wind turbines work, discovery is ongoing, Mitsubishi's document production is incomplete, and Mitsubishi provided its first witnesses for deposition only last week. GE reserves the right to dispute Mitsubishi's noninfringement arguments, and the assertions on which they rely, at the appropriate time.

reference to facilitating ZVRT, provides one of the possible ways to satisfy such grid requirements, and does not require remaining connected to the grid no matter how long the voltage disturbance. Instead, claim 1 refers to the length of the voltage disturbance as “undetermined” – that is, not known in advance – because the actual duration of any given voltage transient is not known in advance.

The grid requirements to which Mitsubishi refers are the ERCOT Operating Guide (November 1, 2009) and FERC Order 661A (December 1, 2005). GE Suppl. App. at Tab B (ERCOT Operating Guide (excerpts)), Tab A (FERC Order 661A (excerpts)). Both define zero voltage ride through by placing a time limit on the amount of time a wind turbine is required to remain connected during a low or zero voltage transient:

ERCOT Operating Guide § 3.1.4.6.1

“WGR voltage relays shall be set to remain interconnected during three-phase faults on the transmission system for a voltage level as low as zero volts with a *duration of no more than nine (9) cycles* as measured at the point of interconnection as shown in Figure 1.”

FERC Order 661A

“The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault *shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.* A wind generating plant shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero volts, as measured at the high voltage side of the wind GSU.”

GE Suppl. App. at 14 (ERCOT Operating Guide), 5-6 (FERC Order 661A) (emphasis added). Given these requirements, in order to facilitate zero voltage ride through, there is no need for a wind turbine to be able to remain connected to the electric power grid with “no time limits placed on the period of time the machine remains connected to the

electric power system when the voltage is below the range,” as Mitsubishi seeks to construe claim 1.

The ERCOT Operating Guide also includes a figure, illustrating the ERCOT ZVRT requirement, that is similar to Figure 3 of the ‘705 Patent.

ERCOT Operating Guide § 3.1.4.6.1 (GE Suppl. App. at 16)

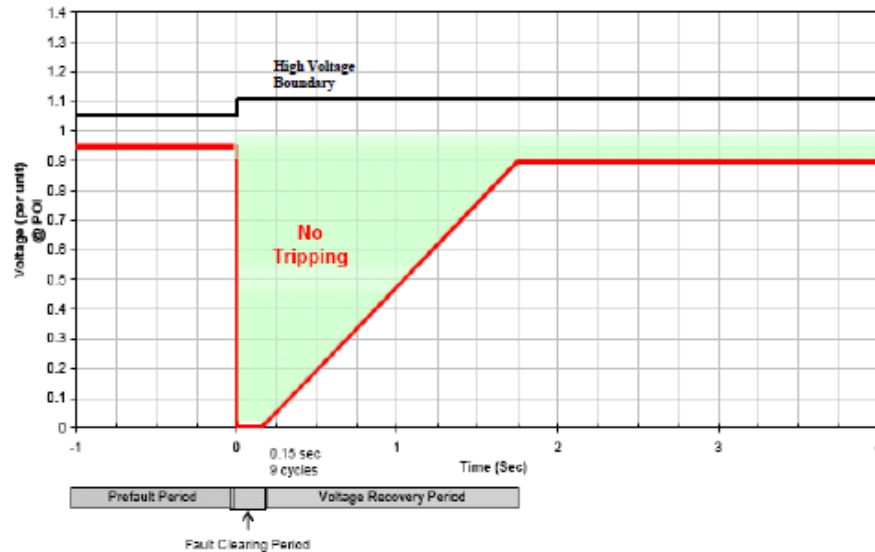


Figure 1: Voltage Ride-Through Boundaries For Wind-powered Generation Resources

As in the example shown in ‘705 Figure 3 and discussed in the text of the ‘705 Patent specification, the ERCOT Operating Guide shows a zero voltage transient of up to 0.15 seconds that the wind turbine must be able to ride through without tripping or disconnecting from the electric power grid. While it is desirable to remain connected as long as possible, there is an upper boundary on how long a wind turbine can be required to remain connected when the grid voltage drops to zero volts. As wind turbines become more sophisticated, that upper boundary may increase. However, Mitsubishi’s proposed construction would require an electrical machine that is configured to remain connected during zero voltage grid faults with “no time limits,” despite the fact that the ‘705 Patent does not describe a wind turbine with that capability.

The ERCOT Operating Guide also sheds light on Mitsubishi's effort to use a single paragraph in column 8 of the specification, which contains a single reference to a "predetermined" period of time, to argue that "[t]he '705 patent also expressly teaches that time limits do not terminate zero-voltage ride-through operation." Mitsubishi's Br. at 23. In making this argument, once again, Mitsubishi uses an ellipsis in quoting the '705 specification that significantly changes its meaning. The following provides the complete paragraph, with the portion that Mitsubishi replaced with an ellipsis shown in boldface:

A method for operating generator 118 is provided. The method includes coupling generator 118 to the grid such that the grid is configured to transmit at least one phase of electric power to and from generator 118. The method also includes configuring generator 118 such that the generator 118 remains electrically connected to the electric power system during and subsequent to a voltage amplitude of the electric power system operating outside of a predetermined range for an undetermined period of time. Specifically, such method includes configuring generator 118 such that generator 118 remains electrically connected to the grid during and subsequent to a voltage amplitude of the electric power decreasing to approximately zero volts for a predetermined period of time, **thereby facilitating zero voltage ride through (ZVRT). Moreover, facilitating generator 118 to remain electrically connected to the grid during a ZVRT event subsequently facilitates generator 118 continuing to operate thereby supporting the grid during the transient.**

GE App. at 18 ('705 Patent at 8:29-46) (emphasis added). Mitsubishi omits the statements that the purpose of this method is "facilitating zero voltage ride through," and that the zero voltage event is a "transient." As shown in the example in the ERCOT Operating Guide discussed above, and as reflected by Figure 3 of the '705 Patent itself, ZVRT requirements set a maximum, not a minimum, time period in which wind turbines must remain connected to the power grid. The reference in this paragraph of the '705 specification to a "predetermined period of time" is fully consistent with that maximum

period required for ZVRT. The paragraph teaches that the generator is configured to ride through voltage disturbances of “undetermined” length – the duration of each individual disturbance varies and thus is not known in advance – and specifically that it is configured to ride through approximately zero voltage disturbances lasting the “predetermined” maximum required period.

B. “Connection Point” (‘055 Patent, Claim 1)

Term(s)	GE’s Proposed Construction	Mitsubishi’s Proposed Construction
“connection point” [‘055 Patent, claim 1]	area of contact between the upper part and the lower part of the base frame	the point where the lower part and the upper part are joined together to form the base frame

Mitsubishi’s arguments regarding “connection point” are summarized in the three bullet points on page 12 of its brief. Each of the arguments is incorrect. *First*, Mitsubishi asserts that the construction must state that the upper and lower parts of the base frame are “‘joined together’ at the connection point.” But this ignores the language of claim 1 as a whole, which must be considered in construing any portion of the claim. *Hockerson-Halberstadt*, 183 F.3d at 1374. Claim 1 already includes other language expressly stating that the lower part “is *attachably joined* with the upper part at a connection point.” GE App. at 8 (‘055 Patent at 6:56-57) (emphasis added). Because claim 1 already includes the words “attachably joined,” it is unnecessary and redundant for the construction of “connection point” also to refer to joining. Moreover, Mitsubishi’s construction is incorrect to the extent that “joined” and “attachably joined” have different meanings, or that Mitsubishi intends to argue that the upper and lower parts must be “joined” throughout every portion of the connection point. These matters are addressed in detail below.

Second, Mitsubishi accuses GE's construction of being "vague" regarding the structures that are connected at the "connection point." Not so. GE's construction states that it is the area of contact "between the upper part and the lower part of the base frame." The parties may disagree regarding what portions of the wind turbine are included in the upper and lower parts of the base frame, but as explained in Part II above, that is a separate dispute to be addressed when the Court considers infringement at trial.

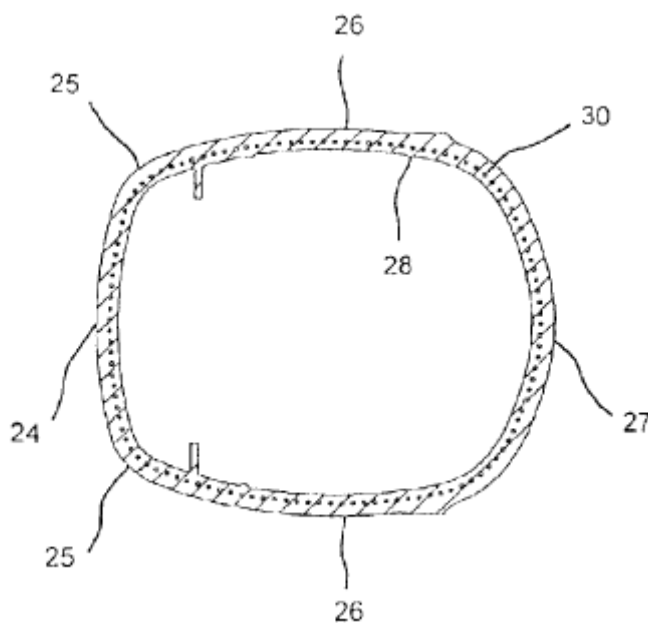
Third, Mitsubishi criticizes GE's use of the word "area" as "vague" and "loose," but that is both incorrect and off-target. GE's concern is to avoid possible confusion in the mind of a juror who might mistakenly believe that the term "connection point" refers to a single mathematical point. That it cannot be a single mathematical point is shown not only by the claim language quoted on page 23 of GE's brief, but also by the arguments on pages 5-6 of Mitsubishi's brief, regarding what Mitsubishi refers to as the "elongated shape" of the connection point. A single mathematical point cannot have an "elongated shape." The "connection point" in the '077 patent truly is an "area of contact" and is properly referred to as such.

By focusing on the area where the upper and lower parts of the base frame contact each other, GE gives meaning to "connection point" without rewriting other parts of the claim. In contrast, Mitsubishi seeks to import limitations into the claim – not to provide "greater clarity" when none is needed, but rather for use in supporting the noninfringement arguments that Mitsubishi previews on page 6 of its brief. That is improper. A "claim is construed in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification, *not* in light of the accused

device.” *SRI*, 775 F.2d at 1118 (emphasis in original). GE’s construction is faithful to the claim language and the rules governing claim construction and should be adopted.

1. The Connection Point Is The Area Of Contact Between The Upper Part And The Lower Part Of The Base Frame

As explained above, the claims and specification of the ‘077 patent require that the connection point be an *area* and not just a single mathematical point. Moreover, the connection point is properly referred to as the area of *contact* between the parts of the base frame and not just, as Mitsubishi proposes, the point where they are joined together. Mitsubishi’s argument is inconsistent with the specification of the ‘077 Patent, and in particular the embodiment shown in Figure 4, in which the connection point is not merely the point where the parts of the base frame are joined together, but rather is the area of contact between them.



‘055 Patent, Figure 4

Figure 4 shows a connection point in which each of the upper and lower parts of the base frame has a flange 28 in the form of a ring, with a series of bolt holes 30

used to fasten it to the other part. GE App. at 7 ('055 Patent at 5:20-44). If Mitsubishi were correct that the connection point is the point where the parts “are joined together,” then the connection point would consist of one of the bolt holes, or perhaps the collection of all of the bolt holes (though in that case Mitsubishi presumably would refer to the “connection points,” not just one point). But that is not what the '055 Patent teaches. According to the patent, Figure 4 is “a view of a connection point between a lower and an upper part.” *Id.* at 6 ('055 Patent at 4:11-13). “FIG. 4 shows the contour of the connection point” including “first section 24,” “bent ends 25,” “side sections 26,” and “second section 27.” *Id.* at 7 ('055 Patent at 5:20-33). Thus, the connection point covers the entire ring shown in Figure 4 – that is, the entire area of contact between the parts of the base frame – and not just one or more of the bolt holes. Limiting the connection point to where the parts are “joined” would thus exclude the embodiment of Figure 4 and should be rejected on that basis alone. *See MBO Labs., Inc.*, 474 F.3d at 1333 (“[A] claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct.”).⁸

⁸ Moreover, Mitsubishi’s use of the word “joined” in isolation is inconsistent not just with the rest of claim 1 but also with the prosecution history that Mitsubishi discusses at length in its brief. Claim 1 does not merely state that the parts of the base frame are joined; it states that they are *attachably* joined. This language was added during prosecution after the Patent Examiner had rejected claim 1 in view of a European patent application showing a unitary base frame that, according to Mitsubishi, was “welded together” and thus joined in a way that was not attachable and detachable. Mitsubishi’s Br. at 10-11 (citing prosecution history). Thus, assuming for the sake of this argument only that Mitsubishi’s description of the prosecution history and cited reference is accurate, then according to Mitsubishi’s own argument, using the word “joined” would include welded-together prior art and thus would be incorrect.

Mitsubishi's proposal also ignores the effect of dependent claim 4.⁹ As GE has explained, claim 4 provides for the upper and lower parts of the base frame to have flanges that are clamped together, and thus attachably joined, "in the area of the connection point." GE's Br. at 26. If such joining were required for all "connection points" within the scope of independent claim 1, then claim 4 would be superfluous. Moreover, Mitsubishi's brief states that "claim 4 of the patent recites both 'flanges' and a 'connection point,' indicating that they constitute different structures." Mitsubishi's Br. at 9. Again, the '055 Patent does not limit "connection point" to only the flanges or other specific points where the parts of the base frame are joined. It includes the area of contact between them.

GE is not attempting, as Mitsubishi would have it, to "suggest that mere contact between two components can substitute for a true connection," or to "cover a partially assembled base frame with an upper part merely sitting atop a lower part." Mitsubishi's Br. at 14. Here again, Mitsubishi ignores the other language in claim 1 expressly stating that the parts are "attachably joined" at (but not necessarily throughout) the connection point. There is no need for the construction of "connection point" to refer to attachably joining the upper and lower parts; another part of the claim already does so.

⁹ As stated on page 22 of GE's opening brief, GE does not presently accuse Mitsubishi of infringing claim 4, but it provides useful context. GE's opening brief also stated, mistakenly, that GE did not accuse Mitsubishi of infringing '055 claim 3. In fact GE accuses Mitsubishi of infringing '055 claims 1, 3, and 13, as GE specifically stated in its infringement contentions served on July 19, 2010 and its amended infringement contentions served on September 18, 2010, and as Mitsubishi recognized on page 6 of Mitsubishi's Opening Brief. GE has informed Mitsubishi of the error in GE's Opening Brief regarding claim 3, and it did not affect any of GE's claim construction arguments.

2. Mitsubishi's Noninfringement Arguments Are Legally Irrelevant And Would Not Support Its Proposed Construction In Any Event

Mitsubishi attempts to buttress its proposed claim construction with a series of noninfringement arguments regarding its accused wind turbines that are irrelevant to claim construction as a matter of law. *See* Part II above. Mitsubishi's noninfringement arguments also are irrelevant because even if Mitsubishi's description of its accused products were correct and complete,¹⁰ the arguments are really concerned with other portions of the claims and not the "connection point" language to be construed. First, Mitsubishi argues at length that a connection with a "housing" cannot be included in the connection point because the housing is not part of the base frame. Even if this assertion were correct, the issue would not be the meaning of "connection point," but rather which portions of Mitsubishi's wind turbines are properly considered part of the base frame. That is an issue of infringement, not claim construction. Second, Mitsubishi argues that the portions of its wind turbines that it concedes should be included in the base frame have a circular connection point, and therefore do not satisfy the separate portion of claim 1 stating that the connection point "extends along an essentially horizontal cross-section that has a larger dimension in the direction of the rotor axis than in the direction perpendicular to that." Again, that is an issue of infringement, involving application to the accused products of a separate part of the claim, that has nothing to do with the construction of "connection point."

¹⁰ Mitsubishi offers no evidence in support of its noninfringement arguments. Moreover, as noted above, discovery is ongoing, Mitsubishi's document production is incomplete, and Mitsubishi provided its first witnesses for deposition only last week. GE reserves the right to dispute Mitsubishi's noninfringement arguments, and the assertions on which they rely, at the appropriate time.

IV.

CONCLUSION

For the foregoing reasons, GE's proposed constructions should be adopted.

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Respectfully Submitted

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing document was served on counsel for all parties through their respective counsel of record through the Court's ECF service this 20th day of December, 2010.

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